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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/930,164	08/16/2001	Wei Xu	SNI-101A	1521

28970 7590 12/16/2004

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EXAMINER

TRAN, NGHI V

ART UNIT PAPER NUMBER

2151

DATE MAILED: 12/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/930,164

Applicant(s)

XU, WEI

Examiner

Nghị V Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08/16/2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-89 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-89 is/are rejected.
- 7) ☒ Claim(s) 17-18 and 44 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/11/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-89 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-88 of copending Application No. 09/930272. Although the conflicting claims are not identical, they are not patentable distinct from each other because the limitation of copending Application No. 09/030164 is overlapping the limitation of copending Application No. 09/930272.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Specification

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3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

4. Claims 17-18 and 44 are objected to because of the following informalities:

With respect to claims 17 and 18, a phrase "receiving a application response, ..." (emphasis added) appears to be a typo error for--receiving an application response--.

With respect to claim 44, a phrase "The system of claim 4232, ..." (emphasis added) appears to be a typo error for--The system of claim 42--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-4, 10, 13-17, 57, 62, 65-67, 68, 73, 76-79, 84, and 87-89, are rejected under 35 U.S.C. 102(e) as being anticipated by Shanklin et al., U.S. Patent Number 6,578,147 (hereinafter Shanklin).

Taking claim 1 as an exemplary claim, Shanklin teaches a method of managing delivery of data to network applications (figures 3, 5-6), the method comprising:

- receiving a data packet, the data packet including a service address and a payload (column 3, lines 44-45);
- identifying a plurality of network applications associated with the service address of the data packet (column 6, lines 25-29), the plurality of network applications associated with the service address including a first network application (items 35, 55, or 65) and a second network application (items 36, 56, or 66), the first network application being different from the second network application (column 6, lines 5-24);
- sending at least the payload of the data packet (column 6, lines 29-46) to the first network application (column 6, lines 4-8); and
- sending at least the payload of the data packet (column 6, lines 29-46) to the second network application (column 6, lines 9-24).

With respect to claim 2, Shanklin further teaches sending at least the payload of the data packet to the first network application occurs at least approximately simultaneously with sending at least the payload of the data packet to the second network application (column 1, lines 39-43).

With respect to claim 3, Shanklin further teaches sending at least the payload of the data packet to the first network application occurs at approximately the same time as sending at least the payload of the data packet to the second network application (column 1, lines 39-43).

With respect to claim 4, Shanklin further teaches sending at least the payload of the data packet to the second network application is not dependent on receiving a response from the first network application (column 6, lines 38-44).

With respect to claim 10, Shanklin further teaches the service address includes a service network address and a service port identifier (column 6, lines 29-46).

Taking claim 13 as an exemplary claim, Shanklin further teaches the first network application is a first version of a network application (column 6, lines 4-56 i.e. network analyzer) and the second network application is a second version of the network application (column 6, lines 4-56 i.e. session analyzer).

Taking claim 14 as an exemplary claim, Shanklin further teaches the first version of the network application is from a first vendor (column 6, lines 4-56; and items 35, 55, or 65), the second version of the network application is from a second vendor, and the first vendor is different from the second vendor (column 6, lines 4-56; and items 36, 56, or 66).

With respect to claim 15, Shanklin further teaches the first network application is selected from the group consisting of an intrusion detection application, a virus detection application, a firewall application, a web switch, a network security application, and a load balancing application (column 6, lines 4-8; and column 5, lines 30-55).

Taking claim 16 as an exemplary claim, Shanklin further teaches the first network application is selected from the group consisting of an intrusion detection application, a virus detection application, a firewall application, a web switch, a network security application, and a load balancing application (column 6, lines 4-8; and column 3, lines 40-48; i.e. detecting signatures); and the second network application is a different network application selected from the group consisting of an intrusion detection application, a virus detection application, a virtual private network application, a firewall application, a proxy application, a database application, a web switch, and a network security application, and a load balancing application (column 6, lines 9-24).

With respect to claim 17, Shanklin further teaches sending the data packet (figure 3, and column 3, lines 40-65); and receiving an application response, the application response based at least in part on the data packet (column 5, lines 29-55; and column 6, lines 4-8; i.e. detecting the signatures from network analyzer).

Claims 57, 62, 68, 73, 79, and 84 are also rejected for the same reason set forth in claim 1 above.

Claims 65, 76, and 87 are also rejected for the same reason set forth in claims 1 and 13 above.

Claims 66, 77, and 88 are also rejected for the same reason set forth in claims 1 and 14 above.

Claims 67, 78, and 89 are also rejected for the same reason set forth in claims 1 and 16 above.

Claim Rejections - 35 USC § 103

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7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5-6, 9, 58, 61, 69, 72, 80, and 83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanklin as applied to claim 1 above, and further in view of NetOptics, "Network Tap" (hereinafter NetOptics).

Taking claim 5 as an exemplary claim, Shanklin fails to teach the first and second network interfaces. However, Shanklin clearly teaches receiving a data packet includes receiving a data packet; sending at least the payload of the data packet to the first network application; and sending at least the payload of the data packet to the second network application. In a method of managing delivery, NetOptics discloses receiving a data packet includes receiving a data packet via a first network interface (pages 7-8); and sending at least the payload of the data packet via a second network interface, the second network interface being different from the first network interface (pages 7-8). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of NetOptics by adding the first and second network interfaces. The motivation for doing so would have been obvious because this feature reduces the cost and upgrades easily with an existing network devices.

Taking claim 6 as an exemplary claim, Shanklin fails to teach the first, second, and third network interfaces. However, Shanklin clearly teaches receiving a data packet and sending at least the payload of the data packet to the first and second network applications. In a method of managing delivery, NetOptics discloses receiving a data packet includes receiving a data packet via a first network interface (pages 7-8 i.e. first network interface is a first network port); sending at least the payload of the data packet to the first network application includes sending at least the payload of the data packet to the first network application via a second network interface, the second network interface being different from the first network interface (pages 7-8 i.e. second network interface is a first monitor port); and sending at least the payload of the data packet to the second network application includes sending at least the payload of the data packet to the second network application via a third network interface, the third network interface being different from the second network interface and the first network interface (pages 7-8 i.e. the third network interface is a second monitor port). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of NetOptics by adding the first, second, and third network interfaces. The motivation for doing so would have been obvious because this feature reduces the cost and upgrades easily with an existing network devices.

Claims 9, 58, 69, and 80 are also rejected for the same reason set forth in claims 5-6 above.

Claims 61, 72, and 83 are also rejected for the same reason set forth in claims 5-6 and 9 above.

9. Claims 31-33, 38-49, and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanklin as applied to claim 1 above, and further in view of NetOptics, "Network Tap" (hereinafter NetOptics).

Taking claim 31 as an exemplary claim, Shanklin fails to teach the first and second network interfaces. However, Shanklin clearly teaches a system to manage delivery of a network service, the system comprising: receiving a first network packet, the first network packet including a first service address and a payload; transmitting at least the payload of the first network packet to a plurality of network application systems associated with the first service address, the plurality of network application systems including a first network application system and a second network application system, the first network application system being different from the second network application system; and packet distribution logic to store packet distribution information, the packet distribution information including a service address field to store a service address, the packet distribution information including a plurality of packet distribution entries, each packet distribution entry of the plurality of packet distribution entries including a source address field to store a source address, and a destination address to store a destination address (figures 4-6). In a system to manage delivery, NetOptics discloses the first and second network interface (pages 7-8). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of NetOptics by adding first and second network interfaces. The motivation for doing so

would have been obvious because this feature reduces the cost and upgrades easily with an existing network devices.

With respect to claim 44, Shanklin fails to teach the one or more protocols includes an IPv6 network protocol. An IPv6 network protocol is well known in the art (see prior art, U.S. Patent Number 6,721,315, by Xiong et al.).

With respect to claim 47, Shanklin fails to teach the MPLS. The layer 3 protocol, MPLS, is well known in the art (see prior art, U.S. Patent Number 6,721,315, by Xiong et al.).

Claims 32-33, 38-43, 45-46, and 48-49, and 51 are also rejected for the same reason set forth in claim 31 above.

10. Claims 34-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over both Shanklin as applied to claim 1 above and NetOptics as applied to claim 31 above, and further in view of Lyon et al., U.S. Patent Number 5,90,705 (hereinafter Lyon).

With respect to claim 34, both Shanklin and NetOptics fail to teach packet distribution entries includes a received interface field to store a received interface identifier, a service port field to store a service port identifier, a send interface field to store a send interface identifier, and a send address field to store a send address. However, both Shanklin and NetOptics teach the first network packet includes a first service port identifier, and each packet distribution entry of the plurality of packet distribution. In a communication network, Lyon discloses a packet distribution includes a received interface field to store a received interface identifier, a service port field to

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store a service port identifier, a send interface field to store a send interface identifier, and a send address field to store a send address (figure 7A and figure 12; column 23, lines 1-18). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify both Shanklin and NetOptics in view of Lyon by including a received interface field to store a received interface identifier, a service port field to store a service port identifier, a send interface field to store a send interface identifier, and a send address field to store a send address. The motivation for doing so would have been obvious because this feature indicates the flow as having packets carrying data between stations with specifying the applications running on the stations.

With respect to claim 35, Shanklin further teaches that the send address is a network address of a network application system of the plurality of network application systems (column 7, lines 20-30).

With respect to claim 36, both Shanklin and NetOptics fail to teach that the send address is a media access controller address of a network application system of the plurality of network application systems. On the other hand, Lyon discloses the send address is a media access controller address of a network application system of the plurality of network application systems (figure 4 and column 2, lines 14-35). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify both Shanklin and NetOptics in view of Lyon by adding a media access controller address. The motivation for doing so would have been obvious because this feature increases demand for real-time and decreases bottlenecks traffic by performing simple table look-up functions.

With respect to claim 37, Shanklin further teaches that packet distribution entry of the plurality of packet distribution entries includes a destination system type field to store a destination system type identifier (column 7, lines 20-30).

11. Claims 50 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over both Shanklin as applied to claim 1 above and NetOptics as applied to claim 31 above, and further in view of Baker, U.S. Patent Number 6,775,657.

Taking claim 52 as an exemplary claim, both Shanklin and NetOptics fail to teach the packet distribution information consists essentially of information that supports stateless processing. In a system to manage delivery, Baker discloses the packet distribution information consists essentially of information that supports stateless processing (figures 1-2 i.e. the step of 215). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of Baker by distributing information consists essentially of information that supports stateless process. The motivation for doing so would have been obvious because this feature increases the bandwidth and reduces the delay.

Claim 50 is also rejected for the same reason set forth in claim 52 above.

12. Claims 7-8, 12, 18, 59-60, 64, 70-71, 75, 81-82, and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanklin as applied to claim 1 above, and further in view of Conklin et al., U.S. Patent Number 5,991,881 (hereinafter Conklin).

Taking claim 7 as an exemplary claim, Shanklin fails to teach sending at least the payload of the data packet to the second network application includes identifying the second network application based at least in part on the first network application response. However, Shanklin clearly teaches sending at least the payload of the data packet to the first network application and sending at least the payload of the data packet to the second network application (column 4, lines 44-61). In a method of managing delivery, Conklin disclose sending at least the payload of the data packet to the first network application (figure 6B) includes receiving a first network application response from the first network application (figure 6E); and sending at least the payload of the data packet to the second network application (figure 6C) includes identifying the second network application based at least in part on the first network application response (figure 6). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of Conklin by sending at least the payload of the data packet to the second network application includes identifying the second network application based at least in part on the first network application response. The motivation for doing so would have been obvious because sending an alarm to a separate intrusion detection increases the performance of detecting various intrusion applications.

Claims 8, 12, 18, 59-60, 64, 70-71, 75, 81-82, and 86 are also rejected for the same reason set forth in claim 7 above.

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13. Claims 11, 63, 74, and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shanklin as applied to claim 1 above, and further in view of Baker, U.S. Patent Number 6,775,657.

With respect to claim 11, Shanklin fails to teach sending at least the payload of the data packet to the first network application is based at least in part on a stateless identification of the first network application; and sending at least the payload of the data packet to the second network application is based at least in part on a stateless identification of the second network application. However, Shanklin clearly teaches sending at least the payload of the data packet to the first network application; and sending at least the payload of the data packet to the second network application. In a method of managing delivery, Baker discloses sending at least the payload of the data packet to the first network application is based at least in part on a stateless identification of the first network application (figures 1-2); and sending at least the payload of the data packet to the second network application is based at least in part on a stateless identification of the second network application (figures 1-2 i.e. the step of 215). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin in view of Baker by ignoring data when data is destined for registered node. The motivation for doing so would have been obvious because this feature increases the bandwidth and reduces the delay.

Claims 63, 74, and 85 are also rejected for the same reason set forth in claim 11 above.

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14. Claims 19-24, 26-30, and 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over both Shanklin as applied to claim 1 above and NetOptics as applied to claim 31 above, and further in view of Conklin et al., U.S. Patent Number 5,991,881 (hereinafter Conklin).

Taking claim 19 as an exemplary claim, both Shanklin and NetOptics fail to teach sending a service response to the source address, the service response based at least in part on the third unit of data. However, both Shanklin and NetOptics teach a method of processing one or more units of data, the method comprising: receiving a first unit of data including a source address and a service address; identifying a plurality of data systems based at least in part on the service address, the plurality of data applications including a first data application and a second data application; sending a second unit of data to the first data application, the second unit of data based at least in part on the first unit of data; sending a third unit of data to the second data application, the third unit of data based at least in part on the first unit of data. In a method of managing delivery, Conklin discloses sending a service response to the source address, the service response based at least in part on the third unit of data (figure 6). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify both Shanklin and NetOptics in view of Conklin by sending a service response to the source address, the service response based at least in part on the third unit of data. The motivation for doing so would have been obvious because responding, forwarding, or sending an alarm to a separate intrusion detection increases the performance of detecting various intrusion applications.

Claims 20-24, 26-30 and 53-56 are also rejected for the same reason set forth in claim 19 above.

15. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over all of Shanklin as applied to claim 1 above, NetOptics as applied to claim 31 above and Conklin as applied to claim 19 above, and further in view of Baker, U.S. Patent Number 6,775,657.

With respect to claim 25, Shanklin, NetOptics, and Conklin fail to teach identifying the first data application is based at least in part on a stateless identification of the first data application. In a method of managing delivery, Banker discloses identifying the first data application is based at least in part on a stateless identification of the first data application (figures 1-2 i.e. the step of 215). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify Shanklin, NetOptics, and Conklin in view of Banker by identifying the first data application is based at least in part on a stateless identification of the first data application. The motivation for doing so would have been obvious because this feature increases the bandwidth and reduces the delay.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. "Control architecture in optical burst-switched networks," by Xiong et al., U.S. Patent Number 6,721,315.

- b. "Intrusion detection system and method having dynamically loaded signatures," by Teal, U.S. Patent Number 6,477,651.
- c. "Network traffic intercepting method and system," by Radatti et al., U.S. Patent Number 6,763,467.
- d. "Extensible thin server for computer networks," by McCurley et al., U.S. Patent Application Publication Number 2002/0062338.
- e. "Method and apparatus for providing a policy-driven intrusion detection system," by Ko et al., U.S. Patent Number 6,789,202.
- f. "Security system for transmission device," by Kanzawa et al., U.S. Patent Application Publication Number 2002/0194507.
- g. "Alarm manager system for distributed network management system," by Roytman et al., U.S. Patent Application Publication Number 2002/0012011.
- h. "Method and system for adaptive network security using intelligent packet analysis," by Gleichauf et al., U.S. Patent Number 6,499,107.


17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi V Tran
Examiner
Art Unit 2151

NT


ZARNI MAUNG
PRIMARY EXAMINER